

ing' (air). By constant handling, I kept the animal in this tense condition for about 10 to 15 minutes. When shaken one could easily hear and feel the viscera moving about inside. Finally, the animal everted its left lung which was full of air. The lung measured approximately  $4'' \times 2\frac{1}{2}''$  in the distended condition. The lung was evidently forced out by the internal air pressure. This curious incident surprised me as I had never witnessed such behaviour before. I put the animal on the ground, and the everted lung left a blood stain on the floor. The frog now deflated itself, and its lung, and with the alternate use of its fore-legs it pushed the lung back into its mouth and 'swallowed' it! After it had replaced its lung, the animal remained quiescent for a while, and then moved off as if nothing had happened. About two hours later, I saw the animal, but it seemed none the worse for its experience.

BOMBAY NATURAL HISTORY SOCIETY,  
11th June 1946.

C. McCANN

#### 24.—CULTURE OF MURRAL FISH (*OPHICEPHALUS MARULIUS* HAMILTON) IN IRRIGATION WELLS<sup>1</sup>

*Ophicephalus marulius*, locally known as *Aviri*, is common in the Bhavani and Cauvery rivers flowing through the Coimbatore and Salem districts. In these rivers the fish attains a maximum size of four feet. It prefers deep river sections with sandy bottom and submerged rocks. It attains maturity at the size of 12 to 14 inches. It breeds from March to June and from October to December, when there are no floods. Like other members of the family *Ophicephalidae*, this species also shows parental care by building nests at the time of breeding. The nesting place is a sheltered weedy river margin, where the depth is not more than four feet, with overhanging trees and shrubs. The temperature of water in the breeding area ranges between 28° and 31°C. The cup-like nests are constructed by inter-weaving stems and blades of water weeds, particularly *Vallisneria spiralis* Linn. at a distance of about two feet from the river margin. The number of fry in a brood is about 500; and they are golden yellow in colour. Both the parents take equal share in the guarding of their nest and young ones. When the fry are one inch in size, black pigments appear on the dorsal and ventral sides, leaving a yellow band along the lateral line. They do not swim beyond a distance of two yards from their parents, and take shelter in the nest at the least disturbance of the water. The parental care is discontinued when the young ones have attained a size of four inches.

The ryots of the district collect the fingerlings and stock them in their irrigation wells, at the rate of about 100 in each well. These fingerlings are fed with live minnows and frogs, and dead birds and rats, and with kitchen refuse. The fish attain a size of  $1\frac{1}{2}$  feet within one year, but only about ten per cent of their original number

<sup>1</sup> Communicated with the kind permission of the Director of Industries and Commerce, Madras.

survive. This may be due to their cannibalistic habit. The ryots capture the grown up fish by angling with a live minnow or frog as bait, for consumption as delicacy on important occasions. The stocking operation is repeated annually. As a result of rural fishery demonstration work in the Madras Province, ryots in other districts, such as Chingleput and South Arcot, have been induced to take to culture of this species in their swampy irrigation tanks and wells, which are difficult to be cleared and used for carp culture. The fish is tenacious of life; and consignments of fingerlings, two inches in size, have been transported over distances of 400 miles without any casualty and without effecting change of water in the carriers *en route* more than once.

INLAND FISHERIES OFFICE,  
8, ORMES ROAD,  
KILPAUK, MADRAS.

P. I. CHACKO  
G. K. KURIYAN

## 25.—A LARGE BLACK ROCK SCORPION

(From *The Field* 12-4-1947. p. 351)

I was interested in the photograph of Capt. D. W. Munntrie's black scorpion. Readers may be interested to know that I forwarded to a military hospital for scrutiny, a black scorpion with an overall length of  $11\frac{1}{2}$  inches, which was discovered under a rock in the village of Krishnarajapuram, S. India. This indeed seemed an outside

70A, LAKENHEATH,  
SOUTHGATE, N. 14.

S. G. BURGESS

[The above extract was sent to us by Mr. R. F. Stoney. The specimen referred to is probably *Palamncus swamerdami*. There is a specimen  $9\frac{3}{4}$  inches long in the Society's collection.—EDS.]

## 26.—AN ANOMALOUS ANTENNA IN *RHIPHOPHOTHRIPI* *CRUENTATUS* HOOD. FROM TAMBARAM, SOUTH INDIA

(With a text-figure)

Two female specimens of *Rhipiphorothrips cruentatus* were collected from the flowers of a shrub *Lagerstroemia indica*, in Tambaram. The right antenna in one of the specimens shows an anomalous type, while the left one is normal. The third antennal joint in the anomalous type is longer than usual, the fourth very much reduced, the fifth and the sixth with variations in shape and the antennal style is also reduced.

Such anomalous antennae have been previously noted and described by Karny. (Ent. Mem. Dept. Agri. India 1926) from rose leaves.